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UM1100 SERIES

25 to 30 Watt DC-DC Converters

Jameco Part Number 206084

- **2:1 Input Range**
- **30W Isolated Output**
- **Efficiency to 84%**
- **Remote On/Off Control**
- **100 KHz Switching Frequency**
- **Six-Sided Shield**

SPECIFICATIONS:

All specifications are typical at nominal line, full load and 25°C unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range, 12V 9-18V
24V 18-36V
48V 36-72V
Input Filter ..... Pi Network
Reverse Voltage Protection[1] ..... Internal Shunt Diode. Use External Fuse

OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output ..... ±1% max.
Dual, + Output ..... ±1% max.
-Output ..... ±3% max.
Triple, 5V ..... ±1% max.
±12V/15V ..... ±5% max.
-5V ..... ±2% max.
Voltage Balance, Dual Output at Full Load
..... ±1.0% max.
Transient Response
Single, 25% Step Load Change ..... <500µ sec.
Dual,FL-1/2L,±1% Error Band ..... <500µ sec.
External Trim Adj. Range ..... ±10%
Ripple and Noise, 20MHz BW ,..... 10mV RMS max.
75mV P-P max.
Temperature Coefficient ..... ±0.02%/°C max.
Short Circuit Protection ..... Continuous.
Overvoltage protection, Trip Point (Zener Clamp Type)
5V 6.8V
12V 15V
15V 18V
Line Regulation[2],Single/Dual Output ..... ±0.2% max.
Triple Output ..... ±1% max.
Load Regulation[3], Single/Dual Output ..... ±1% max.
Triple Output ..... ±5% max.

GENERAL SPECIFICATIONS

Efficiency ..... See Table
Isolation Voltage ..... 500 VDC min.
Isolation Resistance ..... 10^8 Ohms min.
Switching Frequency 100KHz
Case Grounding ..... Capacity Coupled to Input.
Operating Temperature Range
Ambient, None Derating ..... -25°C to +71°C
Cooling ..... Free Air Convection
Storage Temperature Range ..... -55°C to +105°C
EMI/RFI ..... Six-Sided Continuous Shield.
Dimensions ..... 2.56 x 4.56 x 0.83 inches (65 x 115.8 x 21.1 mm)
Case Material ..... Black-Coated Copper with Non-Conductive Base.
Weight 260g

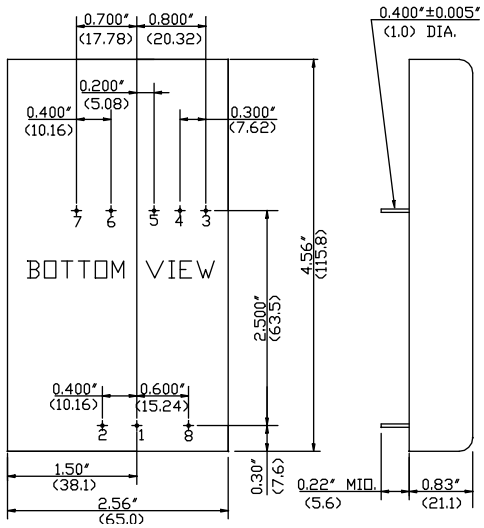
NOTES:

1. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20% to 25% to get the desired fuse size.
2. Measured from high line to low line.
3. Measured from full load to 1/4 full load.

REMOTE ON/OFF CONTROL
Logic Compatibility ..... CMOS or Open Collector TTL
Ec-ON, ... >+5.5 VDC or Open Circuit
Ec-OFF, ... <1.8VDC
Shutdown idle current 10mA
Control Common ..... Referenced to Input Minus

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRNET		% EFF	CASE
				NO LOAD	FULL LOAD		
UM1101	12VDC	5 VDC	5000 mA	35 mA	2800 mA	75	F
UM1102		12 VDC	2500 mA	40 mA	3250 mA	77	
UM1103		15 VDC	2000 mA	40 mA	3250 mA	77	
UM1104		± 12 VDC	± 1250 mA	40 mA	3125 mA	80	
UM1105		± 15 VDC	± 1000 mA	40 mA	3125 mA	80	
UM1106		5/±12 VDC	3000/±450 mA	50 mA	2900 mA	74	
UM1107		5/±15 VDC	3000/±350 mA	50 mA	2750 mA	77	
UM1108		+5/+12/-5 VDC	3000/+450/1000 mA	50 mA	2850 mA	74	
UM1111	24VDC	5 VDC	5000 mA	30 mA	1350 mA	77	F
UM1112		12 VDC	2500 mA	35 mA	1550 mA	80	
UM1113		15 VDC	2000 mA	35 mA	1550 mA	80	
UM1114		± 12 VDC	± 1250 mA	35 mA	1500 mA	84	
UM1115		± 15 VDC	± 1000 mA	35 mA	1500 mA	84	
UM1116		5/±12 VDC	3000/±450 mA	40 mA	1350 mA	80	
UM1117		5/±15 VDC	3000/±350 mA	40 mA	1300 mA	82	
UM1118		+5/+12/-5 VDC	3000/+450/1000 mA	40 mA	1300 mA	81	
UM1121	48VDC	5 VDC	5000 mA	25 mA	675 mA	77	F
UM1122		12 VDC	2500 mA	30 mA	780 mA	80	
UM1123		15 VDC	2000 mA	30 mA	780 mA	80	
UM1124		± 12 VDC	± 1250 mA	25 mA	760 mA	82	
UM1125		± 15 VDC	± 1000 mA	25 mA	750 mA	83	
UM1126		5/±12 VDC	3000/±450 mA	30 mA	650 mA	82	
UM1127		5/±15 VDC	3000/±350 mA	30 mA	650 mA	82	
UM1128		+5/+12/-5 VDC	3000/+450/1000 mA	30 mA	650 mA	81	

CASE F



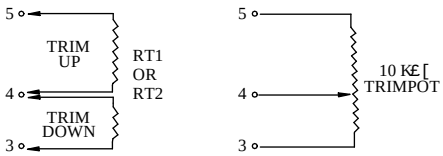
All dimensions in inches(mm).
Tolerance .xx =± 0.04
.xxx =± 0.010

1. Maximum total power from all outputs is limited to 30 watts but no output should be allowed to exceed its maximum current.
2. Minimum current on each output is required to maintain specified regulation.
3. If remote sensing is not utilized. output sense pins must be jumpered to respective output power pins. for normal operation connect Pin No. 3 to Pin No. 6 and Pin No. 5 to Pin No. 7.

PIN CONNECTIONS			
Pin	Single[3]	Dual	Triple
1	+Input	+Input	+Input
2	-Input	-Input	-Input
3	+Sense	+Output	+12V, 15V
4	Output Trim	Common	Common
5	-Sense	-Output	-12V, 15V, 5V
6	+Output	No Pin	+5V
7	- Output	No Pin	+5V com
8	Remote On/Off Control		

EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed (±10%) with a fixed resister or an external trimpot as shown.



TRIPLE OUTPUT LOADING TABLE[1]				
Output	Voltage	Amperes		
		Min[2]	Nom.	Max.
1	+5	.500	3.0	3.5
2 & 3	+12or–12	.100	.450	.700
2 & 3	+12or–15	.100	.350	.700
2 & 3	+12&-5	.100/.200	.450/1.0	.700/1.0

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